

said front face defines a stress riser therein.

34. (New) A park brake cable system as defined in claim 28 wherein:

said shear disk has a front face and a rear face; and

said rear face defines a stress riser therein.

REMARKS

This Amendment is in response to the Office Action mailed July 7, 2000. In this Amendment, claims 1 and 3 are amended and claims 22-34 are added. Claims 1-5, and 22-34 remain in this application for the Examiner's review. Please note that the applicant believes claim 1 is allowable, and is generic to all species denoted in the Examiner's Office Action of February 11, 2000, and thus consideration of new claims 22-34 is respectfully requested. Each of the new claims correspond to claims 6-18, respectively, and all depend variously from claim 1. Since claim 1 is believed to be generic, and is also believed to be allowable, such consideration is believed to be appropriate.

Drawing Corrections:

The drawings have been reviewed, and red-lined drawing sheets 1/11, 2/11, 3/11, 5/11, 6/11, 7/11, 8/11, and 9/11 are enclosed herewith for the Examiner's review and approval. Inadvertent reference numeral errors and other inadvertent errors are corrected. No new matter is added. These drawing changes are identical to those made in the parent application and put the drawings in better form.

Abstract:

The Abstract has been amended to respond to the objection thereto by the Examiner. It is believed the Abstract is now in proper form.

Specification Informalities:

The application has been reviewed and amendments to the specification have been made for clarification purposes.

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35 U.S.C. § 1.112 Issues:

The Examiner rejects claims 1-5 as containing subject matter which is not satisfactorily described in the specification. Among other things, the Examiner notes that the front cable is neither connected to the left rear cable nor the equalizer 60, and further, that it is not understood how the tensioning of the front cable can cause tensioning of the left rear cable. This rejection is similar to one made in the parent application with respect to claims 19-30. The following response to the current rejection is a response similar to that made in the parent application responding to that earlier similar rejection.

The type of cable system described in the specification for use with the inventive brake cable system is called a reactive conduit structure, and is commonly used in the automotive industry for brake cable systems. This reactive conduit structure is described in great detail at least on page 9, line 3 through page 11, line 25. In addition, the reaction conduit type brake system is described in U.S. Patent No. 4,838,109 to Stewart issued June 13, 1989, as well as in U.S. Patent No. 5,086,662 to Tayon issued February 11, 1992. In short, because conduit 56 is flexible, when cable 52 is tensioned it not only applies tension to cable 68 (the right rear cable) but also applies tension through the equalizer and the force balance action with flexible conduit 56 to the left rear cable 66. It is respectfully posited that the reactive conduit system in general was known and available in the art at the time this application was filed, as evidenced by at least the above-referenced issued patents. In addition, the specification and drawings of the present invention show and describe the reactive conduit system. The reactive conduit system and the attendant cable tensioning properties are well-known. The Examiner is respectfully requested to withdraw this rejection. The Examiner is also respectfully requested to fully review the '109 and '662 patents referenced above, in addition to the specification, to obtain an understanding of the reactive conduit type brake cable system as is known in the art and presently available.

The Examiner also rejects claim 5 as being indefinite for failing to particularly point out the subject matter which applicant regards as the elected invention. Claim 5 places the tensioner on the brake actuation lever which is shown in non-elected

species Figs. 26-31. Claim 5 is requested to be examined by the Examiner given the allowable condition of generic claim 1.

The Examiner also rejects claims 1-4 as being indefinite based on what the Examiner believes is a confusing variety of terms.

In response to this rejection, the applicant believes that support for each of these different terms is found in the specification. By using these various terms in combination, such as "front" cable strand and "rear" cable strand in combination in one claim and in another claim using "first" cable strand and "second" cable strand, the undersigned is exercising different types of element nomenclature in order to obtain different scopes of claim protection. In the current claims as amended, consistent terminology is used ("front" and "rear" cable strands, for instance) in claim 1, and further in claim 3 the rear cable strand is defined to include a rear right and a rear left cable strand. This use of terminology is believed consistent with normal practice in the further defining of structure of claim elements. To make this more clear, claim 3 has been amended to read more clearly in the definition of the rear cable strand to include a rear right cable strand and a rear left cable strand. Thus, this portion of the Examiner's objection is believed to be overcome.

The Examiner also believes that the attachment of the tensioner means in a tension force transmitting relationship with the front and rear cable strands is imprecise. Applicant believes this rejection is now moot given the Examiner's understanding of reactive conduit brake systems as described above with respect to the state of art. Again, the key is that sheath 56 is flexible.

Each of the Examiner's non-art rejections are hereby believed to be addressed and overcome.

Art Rejections:

The Examiner rejects claims 1-4 as being anticipated by the Dussault reference. The Examiner contends that the Dussault reference discloses a connector clip having a shear member positioned between the first and second ends thereof. The Examiner refers to reference numeral 161 in Fig. 10 of the Dussault reference as the

connector clip. The Examiner states, in reference to the contended connector clip, that when one applies tension to the front and rear cable strands of the Dussault structure, a shear failure force is created to cause the second end of the front cable to "break the shear member and move to the first end of the clip."

The applicant strongly urges the Examiner to not overlook the structural limitations of the claim, including that a shear member is formed on the connector clip, and the shear member is positioned between the first and second end of the connector clip.

The Examiner states that "virtually anything will break if enough force or pressure is applied to it. On the other hand, the functional limitations of the claim are not to be given patentable weight where those limitations are inherent in the prior art reference." The limitations of claim 1 as written are simple: the connector clip has a first end and a second end and a shear member positioned between the first and second ends. The second end of the front cable strand engages the shear member, and when the tensioner means creates sufficient shear force on the shear member, the shear member breaks and the second end of the front strand moves to the first end of the connector. Each of these limitations is found in claim 1. The function defined in claim 1 is related closely to the structure clearly called out therein; namely, the engagement of the second end of the front cable strand with the shear member prior to the failure of the shear member, and the movement of that second end to the first end of the connector clip when the tension has been increased sufficiently to cause the shear member to fail. There is absolutely no reference in Dussault of any contemplation of this type of structure and associated function. The Dussault reference shows the respective ends of the cable strands in the proposed "connector clip 161" (per the Examiner's definition). If the shear member 165, as defined by the Examiner, is caused to fail, the rear end of the front cable strand would simply disconnect from the "connector clip 161" and the brake system would no longer be a brake system but a dysfunctional and discontinuous cable brake system.

As an aid to enhancing the Examiner's understanding of the structure already set forth in claim 1, claim 1 has been amended to include that the elements of the system are connected together, thereby "creating a continuous connection from the

brake actuation lever to the brake assembly." This continuous connection is maintained even after the shear tab has been caused to fail and the second end of the front cable has been repositioned to the first end of the connector clip. This amendment is not made to further distinguish claim 1 from the Dussault reference because claim 1 is already distinguished from the Dussault reference by the structure of the connection clip at least. Claim 1 is thus believed to be patentably distinct, based on the claim limitations as originally filed and clarified herein, and thus overcomes the Dussault reference. Such finding is respectfully requested. Claims 2-4 depend variously from claim 1, and are thus believed to also be allowable for at least this reason.

Claim 3 has been amended to more clearly establish that the brake assembly includes a rear left brake assembly and a rear right brake assembly, and that the cable includes a rear left cable strand and a rear right cable strand, each leading to their respective brake assemblies. This is believed to clear up any vagueness in the existing claim limitations while not further limiting the claim as it was originally written. These amendments are believed to overcome the Examiner's objections.

New Claims:

As mentioned above, new claims 22-34 are submitted as claims 6-18 rewritten to depend from claim 1. Claim 1 is believed to be generic and allowable, and thus these new dependent claims are requested to be examined in light of their respective figures. Such action is respectfully requested.

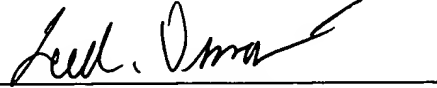
In light of the amendments to the claims, as well as the remarks above, it is believed that each of the Examiner's issues have been thoroughly addressed and that claims 1-5 and 22-34 are allowable over the cited art by the Examiner. Allowance of these claims is respectfully requested.

This amendment is in response to Office Action mailed July 7, 2000, setting a response time of October 7, 2000, with extensions available to January 7, 2001. Since January 7, 2001 was a Sunday, the three-month extension date for response to the Office Action is Monday, January 8, 2001. See 37 C.F.R. § 1.7. The appropriate fee for a three-month extension is enclosed herewith. It is believed that no additional fee

is associated with this response. However, should any fee deficiency exist, consider this a petition therefore and charge Deposit Account 04-1415 for the required fee.

Signed at Denver, Colorado, on this 8th day of January, 2001.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Lee R. Osman", written over a horizontal line.

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